

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for generating business models for solving a selected business problem, the method comprising:

(a) describing a plurality of computer-simulateable business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model has an associated operational performance model,

(b) describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models,

915 (c) determining the operational performances of the businesses described by the plurality of business models by simulating (i) ~~by simulating~~ the plurality of business models, and (ii) ~~by simulating the business-model environment~~, including simulating the customer models receiving values from the business models, and

(d) generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method including (i) determining business-model fitness in dependence on the operational business-model performances, (ii) selecting one or more business models in dependence on their fitness, and (iii) transforming the selected business models into new business models by applying one or more genetic operators, wherein the new business models incorporate elements of the selected business models.

2. (Currently amended) The method of claim 1, further comprising ~~a step of repeating one or more times the steps of determining and generating~~ (c) and (d), wherein each ~~step of determining repeat of (c)~~ simulates the plurality of business models resulting from the previous iteration of (d) step of generating.

3. (Original) The method of claim 1 wherein the business models are elements in a space of business models for solving the business problem.

4. (Currently amended) The method of claim 1 wherein at least two business models interact, and wherein ~~the step of determining~~ (c) further comprises simulating interactions between

business models.

5. (Original) The method of claim 1 wherein the genetic operators comprise a cross-over operator which transforms at least two parent business models into at least one new business model by combining characteristics of both parent business models into the characteristics of the at least one new business model.

6. (Original) The method of claim 1 wherein the genetic operators comprise a mutation operator which transforms a parent business model into a new business model by modifying a characteristic of the parent business model.

915
7. (Original) The method of claim 1 wherein the business models comprise parameter data specifying characteristics of the business operations described by the business models.

8. (Original) The method of claim 1 wherein business model descriptions comprises one or more computer-simulateable value propositions (VP) which describe output values provided by businesses.

9. (Currently amended) The method of claim 8 wherein VPs comprise descriptions of at least one of: the natures of one or more goods or services provided, ~~or~~ qualities of the goods or services, ~~or~~ customers for goods and services, ~~or~~ relations with other business models, ~~or~~ and marketing to customers or business models.

10. (Original) The method of claim 1 wherein business model descriptions comprises one or more computer-simulateable operational approaches (OA) which describe inputs to businesses and transformations of inputs to output values by businesses.

11. (Currently amended) The method of claim 10 wherein the OAs comprise descriptions of at least one of: inputs needed for the goods or services provided, ~~or~~ technology employed to produce the goods or services, and ~~or~~ capital and labor needed for production.

12. (Original) The method of claim 1 wherein business model descriptions comprises one or more computer-simulateable revenue mechanisms (RM) which describe pricing and cost models by which businesses acquire revenues.

13. (Currently amended) The method of claim 12 wherein the RMs comprise descriptions of at least one of: a margin or an amount per transaction, ~~or a margin or an amount per unit time, or a margin or an amount per unit volume, or a transaction pricing mechanism, or a subscription pricing mechanism, or a flat rate pricing mechanism, and~~ a membership fee pricing mechanism.

915
14. (Currently amended) The method of claim 1 wherein business models comprise descriptions of at least one of: one or more inputs to a business, one of more values output from a business, one or more transformations of inputs into output values by a business, labor and capital required for a business, and one or more pricing models for a business.

15. (Currently amended) A method for generating business models for solving a selected business problem comprising:

(a) describing a plurality of computer-simulateable building blocks, wherein the building blocks comprise one or more business elements of the business problem, and wherein the building blocks further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses, (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues,

(b) generating an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

(c) determining the operational performances of the businesses described by the plurality of business models by simulating the plurality of business models, and

(d) generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models, and

(e) repeating one or more times ~~the steps of determining the operational performance and generating a next plurality of business models~~ (c) and (d), wherein each ~~step of determining~~ repeat of (c) simulates that plurality of business models resulting from the previous ~~step of generating iteration of (d)~~.

16. (Original) The method of claim 15 wherein the business models constructed from the building blocks forms a space of business models for solving the business problem.

915
17. (Currently amended) The method of claim 15 wherein each business element comprises a description of at least one of: ~~only~~ an input to a business, ~~or only~~ a value output from a business, ~~or~~ a transformation employed by a business, ~~or and only~~ a consideration received by a business for an output value.

18. (Currently amended) The method of claim 15 further comprising describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models, and wherein ~~the step of determining operational performances (c)~~ further comprises simulating the environment, including simulating the customer models receiving values from the business models.

19. (Original) The method of claim 18 wherein the customer models descriptions of customer behaviors, wherein the behaviors comprise patronizing a business model.

20. (Original) The method of claim 19 wherein the customer models descriptions of customer behaviors, wherein the behaviors further comprise choosing a business model to patronize and being idle.

21. (Original) The method of claim 15 wherein the evolutionary method comprises: determining business-model fitness in dependence on the operational business-model model performances, selecting one or more business models in dependence on their fitness, and transforming the selected business models into new business models by applying one or more genetic operators, wherein the new business models incorporate elements of the selected business models.

22. (Original) The method of claim 21 wherein the genetic operators comprise a cross-over operator which transforms at least two parent business models into at least one new business model by selecting building blocks from both parent business models to be the building blocks of the at least one new business model.

a15 23. (Original) The method of claim 21 wherein the genetic operators comprise a mutation operator which transforms a parent business model into a new business model by modifying a characteristic of a building block of the parent business model.

24. (Currently amended) The method of claim 15 wherein each building block describes at least one of: ~~only~~ one or more inputs to a business, ~~or only~~ one of more values output from a business, ~~or only~~ one or more transformations of inputs into output values by a business, ~~or only~~ one or more pricing models for a business, ~~or and only~~ one or more performances of a business.

25. (Currently amended) The method of claim 15 wherein VP building blocks comprise business elements describing at least one of: the natures of one or more goods or services provided, ~~or~~ qualities of the goods or services, ~~or~~ customers for goods and services, ~~or~~ relations with other business models, ~~or and~~ marketing to customers or business models.

26. (Currently amended) The method of claim 15 wherein the OA building blocks comprise business elements describing at least one of: inputs needed for goods or services provided, ~~or~~ technology employed to produce the goods or services, ~~or and~~ capital and labor needed for production.

27. (Currently amended) The method of claim 15 wherein the RM building blocks comprise business elements describing at least one of: a margin or an amount per transaction, ~~or a margin or an amount~~ per unit time, ~~or a margin or an amount~~ per unit volume, ~~or a transaction pricing mechanism, or a subscription pricing mechanism, or a flat rate pricing mechanism, and~~ a membership fee pricing mechanism.

28. (Currently amended) A method for generating business models for solving a selected business problem the method comprising:

015 (a) describing a plurality of computer-simulateable building blocks, wherein the building blocks comprise descriptions of one or more business elements of the business problem, and wherein business elements comprises descriptions at least one of: an input to a business, ~~or a value output from a business, or a transformation employed by a business, and~~ a consideration received by a business for an output value,

(b) describing one or more computer-simulateable customer models, wherein the customer models patronize the business model to receive values from the business model,

(c) determining the operational performance of a business described by a business model, wherein a business model comprises a plurality of building blocks and an associated operational performance model that describe operation of a business for solving the business problem, and wherein operational performance is determined by simulating (i) ~~by simulating~~ the business model, and (ii) ~~by simulating~~ the one or more customer models receiving values from the business model, and

(d) generating a final business model of improved performance by performing an optimization method, wherein the optimization method (i) uses a fitness dependent on the operational business-model performances, and (ii) substitutes or alters one or more building blocks of the business model.

29. (Currently amended) The method of claim 28 further comprising ~~a step of repeating one or more times the steps of determining and generating (c) and (d), wherein each step of determining repeat of (c) simulates that business model resulting from the previous step of generating iteration of (d).~~

30. (Currently amended) The method of claim 28 wherein the optimization method comprises at least one of: local search heuristics, ~~or~~ simulated annealing, ~~or~~ reinforcement learning, ~~or~~ adaptive computation and machine learning, ~~or~~ and an evolutionary optimization method.

31. (Original) The method of claim 28 wherein the building blocks comprise one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses.

32. (Original) The method of claim 28 wherein the building blocks comprise one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses.

915
33. (Original) The method of claim 28 wherein the building blocks comprise one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues.

34. (Currently amended) A method for generating business models for solving a selected business problem, the method comprising:

(a) describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing at least one of: the natures of one or more goods or services provided, ~~or~~ qualities of the goods or services, ~~or~~ customers for goods and services, ~~or~~ relations with other business models, ~~or~~ and marketing to customers or business models, (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of inputs needed for goods or services provided, ~~or~~ technology employed to produce the goods or services, ~~or~~ and capital and labor needed for production, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses

acquire revenues by comprising information describing at least one of a margin or an amount per transaction, ~~or a margin or an amount per unit time, or a margin or an amount per unit volume, or~~ transaction pricing mechanism, ~~or~~ a subscription pricing mechanism, ~~or~~ a flat rate pricing mechanism, ~~or~~ and a membership fee pricing mechanism,

(b) generating an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

(c) determining the operational performances of the businesses described by the plurality of business models by simulating the plurality of business models, and

915 (d) generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models, and

(e) repeating one or more times ~~the steps of determining the operational performance and generating a next plurality of business models~~ (c) and (d), wherein each ~~step of determining~~ repeat of (c) simulates that plurality of business models resulting from the previous ~~step of generating~~ iteration of (d).

35. (Currently amended) A method for generating business models for solving a selected business problem, the method comprising:

(a) describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing at least one of: the natures of one or more goods or services provided, ~~or~~ qualities of the goods or services, ~~or~~ customers for goods and services, ~~or~~ relations with other business models, ~~or~~ and marketing to customers or business models, (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of: inputs needed for goods or services provided, ~~or~~ technology employed to produce the goods or services, ~~or~~ and

capital and labor needed for production, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing at least one of: a margin or an amount per transaction, ~~or a margin or an amount~~ per unit time, ~~or a margin or an amount~~ per unit volume, ~~or a transaction pricing mechanism~~, ~~or a subscription pricing mechanism~~, ~~or a flat rate pricing mechanism~~, ~~or and~~ a membership fee pricing mechanism,

(b) describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models, generating an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

a15
(c) determining the operational performances of the businesses described by the plurality of business models by (i) simulating the plurality of business models and (ii) simulating the environment, including simulating the customer models receiving values from the business models, and

(d) generating a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models, and

(e) repeating one or more times ~~the steps of determining the operational performance and generating a next plurality of business models~~ (c) and (d), wherein each ~~step of determining repeat of (d)~~ simulates that plurality of business models resulting from the previous ~~step of generating iteration of (e)~~.

36. (Currently amended) A method for generating business models for solving a selected business problem, the method comprising:

(a) describing a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe

a 15
output values provided by businesses by comprising information describing at least one of the natures of one or more goods or services provided, ~~or~~ qualities of the goods or services, ~~or~~ customers for goods and services, ~~or~~ relations with other business models, ~~or~~ and marketing to customers or business models, (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of: inputs needed for goods or services provided, ~~or~~ technology employed to produce the goods or services, ~~or~~ and capital and labor needed for production, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing at least one of: a margin or an amount per transaction, ~~or~~ a margin or an amount per unit time, ~~or~~ a margin or an amount per unit volume, ~~or~~ transaction pricing mechanism, ~~or~~ a subscription pricing mechanism, ~~or~~ a flat rate pricing mechanism, ~~or~~ and a membership fee pricing mechanism,

(b) describing a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models,

(c) determining the operational performance of a business described by a business model, wherein a business model comprises a plurality of building blocks and an associated operational performance model that describe operation of a business for solving the business problem, and wherein operational performance is determined (i) by simulating the business model, and (ii) by simulating the environment, including simulating the customer models receiving values from the business models, and

(d) generating a final business model of improved performance by performing an optimization method, wherein the optimization method (i) uses a fitness dependent on the operational business-model performances, and (ii) substitutes or alters one or more building blocks of the business model.

37. (Currently amended) The method of claim 36 wherein the optimization method comprises at least one of: local search heuristics, ~~or~~ simulated annealing, ~~or~~ reinforcement learning, ~~or~~ adaptive computation and machine learning, ~~or~~ and an evolutionary optimization method.

38. (Currently amended) Computer executable software instructions stored on a computer readable medium, the software instructions for causing a computer to: ~~perform the method of claim 15.~~

(a) characterize a plurality of computer-simulateable building blocks, wherein the building blocks comprise one or more business elements of the business problem, and wherein the building blocks further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses, (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues.

a ¹⁵
(b) generate an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

(c) determine the operational performances of the businesses described by the plurality of business models by simulating the plurality of business models, and

(d) generate a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models, and

(e) repeat one or more times (c) and (d), wherein each repeat of (c) simulates that plurality of business models resulting from the previous iteration of (d).

39. (Currently amended) Computer executable software instructions stored on a computer readable medium, the software instructions for causing a computer to ~~perform the method of claim 35.;~~

(a) characterize a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further

comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing at least one of: the natures of one or more goods or services provided, qualities of the goods or services, customers for goods and services, relations with other business models, and marketing to customers or business models. (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of: inputs needed for goods or services provided, technology employed to produce the goods or services, and capital and labor needed for production, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing at least one of a margin or an amount per transaction, a margin or an amount per unit time, a margin or an amount per unit volume, a transaction pricing mechanism, a subscription pricing mechanism, a flat rate pricing mechanism, and a membership fee pricing mechanism.

(b) describe a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models, generating an initial plurality of business models, wherein a business model describes operations of businesses for solving the business problem, and wherein a business model comprises a plurality of building blocks and an associated operational performance model,

(c) determine the operational performances of the businesses described by the plurality of business models by (i) simulating the plurality of business models and (ii) simulating the environment, including simulating the customer models receiving values from the business models, and

(d) generate a next plurality of business models from the simulated plurality of business models by performing an evolutionary method, wherein the evolutionary method uses a fitness dependent on the operational business-model performances and applies genetic operators to the building-blocks of business models, and

(e) repeating one or more times (c) and (d), wherein each repeat of (c) simulates that plurality of business models resulting from the previous iteration of (d).

40. (Currently amended) Computer executable software instructions stored on a computer readable medium, the software instructions for causing a computer to perform the method of claim 36.;

a¹⁵
(a) characterize a plurality of computer-simulateable building blocks, wherein the building blocks include one or more business elements of the business problem and further comprise (i) one or more computer-simulateable value proposition (VP) building blocks which describe output values provided by businesses by comprising information describing at least one of the natures of one or more goods or services provided, qualities of the goods or services, customers for goods and services, relations with other business models, and marketing to customers or business models, (ii) one or more computer-simulateable operational approach (OA) building blocks which describe inputs to businesses and transformations of inputs to output values by businesses by comprising information describing at least one of: inputs needed for goods or services provided, technology employed to produce the goods or services, and capital and labor needed for production, and (iii) one or more computer-simulateable revenue mechanism (RM) building blocks which describe pricing and cost models by which businesses acquire revenues by comprising information describing a margin or an amount per transaction, a margin or an amount per unit time, a margin or an amount per unit volume, a transaction pricing mechanism, a subscription pricing mechanism, a flat rate pricing mechanism, and a membership fee pricing mechanism.

(b) describe a business-model environment, wherein the business-model environment comprises a plurality of computer-simulateable customer models, wherein the customer models patronize the business models to receive values from the business models.

(c) determine the operational performance of a business described by a business model, wherein a business model comprises a plurality of building blocks and an associated operational performance model that describe operation of a business for solving the business problem, and wherein operational performance is determined (i) by simulating the business model, and (ii) by simulating the environment, including simulating the customer models receiving values from the business models, and

Q15 _____ (d) generate a final business model of improved performance by performing an optimization method, wherein the optimization method (i) uses a fitness dependent on the operational business-model performances, and (ii) substitutes or alters one or more building blocks of the business model.

41-43. (Cancelled)
